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EXAMINER

KOYAMA, KUMIKO C

ARTICLE	PAPER NUMBER
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2876

DATE MAILED: 01/02/2004

Please find below and or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09 918 035

Applicant(s)

PURPURA ET AL

Examiner

Kumiko C. Koyama

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a); in no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any available late fee adjustment. (See 37 CFR 1.704(b).)

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is **FINAL**                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-24 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 25-35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/30/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
- 1 ☐ Certified copies of the priority documents have been received.
- 2 ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
- 3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## DETAILED ACTION

### *Drawings*

1 The drawings are objected to because of the following informalities.

The specification discloses that Fig 5 includes a process 500. However, Fig 5 does not show a reference number 500.

Fig. 1 and Fig. 3 include illegible numbers and letters. The examiner respectfully requests the applicant to enlarge the size of the numbers and letters.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

2 The abstract of the disclosure is objected to because it includes improper language, such as "disclosed" and "comprises." Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

3 Claim 25 is objected to because of the following informalities

Line 2 "the vicinity" should be changed to "--a vicinity--"

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4       The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5       Claim 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin (US 5,280,162) in view of Narabu (US 5,453,604).

Re claim 1 and 2, Marwin teaches a method of generating a progressively corrected scan signal, the progressively corrected scan signal having a magnitude independent of spectral reflectance from a background near a target, comprising generating a baseline signal by sampling light reflected from the target and background before transmitting a light scan at the target (col 12 lines 3-7) and generating a detected signal by receiving light reflected from the target and background while transmitting the light scan at the target (col 12 lines 11-19).

Although Marwin teaches a comparator means for receiving steady state voltage signal detected signal and threshold voltage signal/baseline signal for detecting a change in the steady state voltage signal (col 10 lines 37-48), Marwin fails to teach a method of subtracting the baseline signal from the detected signal to form the progressively corrected scan signal.

Narabu teaches a comparator means equivalently subtracts an offset potential from an image pick-up signal (col 4 lines 47-54).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Narabu to the teachings of Marwin because

Art Unit 2876

space to bar, or vise versa, and such detection is an essential part of bar code reading in order to provide an identity to an object

Re claim 4 Marwin discloses that transmitting the light scan at the target comprises transmitting a laser beam at the target (col 14 lines 30-34).

6 Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin as modified by Narabu as applied to claim 1 above, and further in view of Buhler et al (US 5,672,317). Marwin as modified by Narabu have been discussed above

Marwin as modified by Narabu fails to teach that the target comprises a sample vessel.

Buhler et al teaches a sample vessel 11 with a bar code label 48 (Fig 5)

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Marwin to the teachings of Buhler because a bar code label is capable to identifying the contents, tests that have been/being performed, results of the sample vessel in a fast and easy manner. Furthermore, it may prevent the sample vessel from getting lost with in a lab.

7 Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin as modified by Narabu as applied to claim 4 above, and further in view of Blanford (US 4,868,375). Marwin as modified by Narabu have been discussed above

Marwin as modified by Narabu fail to teach transmitting a laser beam at the target comprises transmitting a red laser beam at the target

Blanford teaches a bar code reader 20 having a light source 32 producing a continuous laser beam of red monochromatic light (col 3 lines 26-29)

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Blanford to the teachings of Marwin as modified by Narabu in order to indicate where the bar code reader is emitting light towards, which helps the user to aim the reader's light source to the precise location of the bar code, therefore obtaining the correct bar code information reading in a timely manner

8 Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin as modified by Narabu as applied to claim 1 above, and further in view of Belser (US 5,892,745). Marwin as modified by Narabu have been discussed above.

Marwin as modified by Narabu fail to teach the subtracting step comprises inverting the baseline signal and summing the detected and inverted baseline signals

Belser teaches subtracting MO+ and MO- signals using an inverting amplifier and a summing amplifier (col 2 lines 41-44).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Belser to the teachings of Marwin as modified by Narabu because an inverting amplifier and an summing amplifier are well known operational amplifiers that are cheap and easy to use, which leads to a more simple and compact product

9 Claim 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin as modified by Narabu and Belser as applied to claim 6 above, and further in view of Nagata et al (US 5,898,738). Marwin/Narabu/Belser have been discussed above

Art Unit 2876

Marwin Narabu Belser fail to teach passing the detected signal through a first resistor and the inverted baseline signal through a second resistor before the summing where the ratio of the first resistor to the second resistor comprises the ratio 1:3.

Nagata teaches a first resistor with its one end connected to the logic sum circuit and the other end connected to an operational amplifier, and a second resistor with its one end connected to the logic sum circuit. Nagata further teaches that the first and second resistors have their resistance values set to be 1:3 ratio.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Nagata to the teachings of Marwin/Narabu/Belser in order to adjust the signal amplitude to a value that the summing amplifier is capable to handling, which prevents the amplifier from being damaged or perform wrong operations.

10 Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin as modified by Narabu, Belser and Nagata as applied to claim 8 above, and further in view of Endo (US 5,258,749). Marwin/Narabu/Belser/Nataga have been discussed above.

Marwin teaches receiving reflected light off a bar code at the photodetector 12 and the signal being amplified (col 5 lines 64-68). The amplifier is located right after the photodetector (Fig. 1).

However, Marwin/Narabu/Belser/Nagata fail to teach amplifying the baseline signal by a factor of three before the inverting.

Endo teaches a signal passing through an amplifier 8 and amplifying the level to three

Art Unit 2876

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Endo to the teachings of Marwin Narabu Belser Nagata and amplify the baseline signal, which is generated by receiving reflected light off of the background, by a factor of three in order to adjust the signal amplitude to a value that the inverting amplifier is capable to handling, which prevents the inverting amplifier from being damaged or perform wrong operations

11 Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marwin as modified by Narabu as applied to claim 1 above, and further in view of Robertson (US 4,806,741). Marwin as modified by Narabu have been discussed above.

Marwin as modified by Narabu fail to teach a method comprising generating a scan synchronization signal immediately before transmitting the light scan, and generating the baseline signal immediately after generating the scan synchronization signal

Robertson teaches a line scan synchronization signals, which comprise steps of generating a time sequence of pulsed signals (col 3 lines 63-65).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Robertson to the teachings of Marwin in order to enhance signals read and improve the readability of defective formed or damaged bar codes

***Allowable Subject Matter***

12 Claims 11-24 are allowable over the prior art of record

\* \* \* \* \*



Art Unit 2876

14 The following is a statement of reasons for the indication of allowable subject matter. The best prior art of record, Marwin, Sherer, Takenaka, Harr taken alone or in combination fail to teach a coupling circuit comprising a sample signal generator, the sample signal generator comprising an input and output, the sample signal generator input receiving a sample timing signal, a sample-and-hold circuit, the sample-and-hold comprising an input, an output, and a sample trigger, the sample-and-hold input receiving the scan detector output signal, the sample trigger operatively coupled to the sample signal generator output, and a voltage amplifier, the amplifier comprising an input and an output, the amplifier input operatively coupled to the sample-and-hold output, the amplifier output operatively coupled to the sample-and-hold input.

### *Conclusion*

15 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Harr, U.S. Patent No. 3,770,940, discloses an optical bar coding scanning apparatus.

Acker, U.S. Patent No. 3,801,775, discloses a method and apparatus for identifying objects.

Dolch, U.S. Patent No. 3,847,346, discloses data field recognition and reading method and system.

Nojin et al. U.S. Patent No. 4,096,992 discloses a system for recognizing bar code information.

Sherer, U.S. Patent No. 4,160,156, discloses a method and apparatus for reading bar

Art Unit 2876

Hara et al, U.S. Patent No. 4,516,017, discloses a high-sensitive optical reading apparatus and method of reading optical information

Pelton et al, U.S. Patent No. 5,281,800, discloses a method and apparatus for low power optical sensing and decoding of data

Takenaka, U.S. Patent No. 5,331,142, discloses a scan velocity detector and code reader using the same

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 703-305-5425. The examiner can normally be reached on Monday-Friday 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

kek  
December 19, 2002

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